



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Becky Koehler
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: February 21, 2018

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement February 22, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Wednesday, March 7, 2018**. Applications will not be accepted after that time and date.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

ET IV

Senior Nuclear Instrumentation Technician
Bureau of Materials
Highways Project Implementation
Springfield

Attachments
42345

Technical Applications [PM1080 rev 6/1/17](#) **must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by **Wednesday, March 7, 2018, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



**Illinois Department
of Transportation**

An Equal Opportunity Employer

Position Summary Sheet

Classification:	Engineering Technician IV	Salary:	\$4,695 - \$6,735*
Position Title:	Senior Nuclear Instrumentation Technician	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW014 23-75-702-33-02	IPR#:	42345

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation / Bureau of Materials / 126 E. Ash Street, Springfield, IL

Description Of Duties:

This position is accountable for assisting with the installation, implementation, maintenance and repair of nuclear density gauges and similar devices.

Special Qualifications:

Required:

- On call status for advice and emergency assistance
- Valid driver's license
- Statewide travel with overnight stays

Desired:

- An Associate Degree from an accredited two-year civil engineering technology program or two years of college in pre-engineering or civil engineering technology
- Eight years of experience in performing a variety of technical tasks with a minimum of four years in materials laboratory testing/field inspection and/or materials certification
- Working knowledge of operation and repair of nuclear density, earth deformation, and geophysical equipment
- Ability to maintain harmonious relationships with department employees and other state and federal agencies
- Strong oral and written communication skills

Shift/Remarks:

8:00 am – 4:30 pm / Monday – Friday

*Individual salary offers are computed based on an applicant's current position and experience level in comparison to the posted title as well as internal equity of staff in the organizational unit.

**Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	January 19, 2018	POSITION:	Senior Nuclear Instrumentation Technician
APPROVED BY:	Brian Pfeifer	OFFICE/DIVISION:	Office of Highways Project Implementation/Bureau of Materials
CODE:	PW014-23-75-702-33-02	REPORTS TO:	Nuclear Instrumentation Specialist

Position Purpose

This position is accountable for assisting with the installation, implementation, maintenance and repair of nuclear density gauges and similar devices.

Dimensions

Number of Testing Units:

Nuclear Gauges	170
Seismic Unit	1
Resistivity Unit	1
Slope Inclinator	4
Value of Test Equipment	\$1,000,000
Travel	\$4000

Nature and Scope

This position reports directly to the Nuclear Instrumentation Specialist. No staff reports directly to this position.

This position is critical in that it is only one of two in the state (besides the Sub-Unit supervisor) where the incumbent is allowed to repair or calibrate nuclear testing devices, other than the manufacturer. This is necessary because of the complexity and sophistication of the instruments, and the danger of overexposure from radiation. The technological aspects of this position require knowledge of mathematics, physics, and the technical expertise necessary to repair electronic and mechanical parts of the units. This position helps to assure that the nuclear testing, geophysical, and earth deformation programs are efficiently and effectively administered and in compliance with the specifications and Project Procedures Guide.

The greatest challenge for the incumbent is to expertly assist the Nuclear Instrumentation Specialist with solving problems that arise during routine construction as well as the development of special techniques and procedures to solve all types of compaction problems related to the use of nuclear equipment.

The incumbent is accountable for repair of earth deformation measuring devices, i.e. piezometers, settlement devices, inclinometers, and the operation and repair of geophysical equipment. S/He is accountable for assisting with the direction of a safety program, especially to alert others that nuclear sources are in an area, and to help assure that personnel who operate the units are constantly made aware of the radiation dosages that they are being exposed to. The incumbent is available on call for advice and emergency assistance to district personnel who operate the nuclear, earth deformation and geophysical units. S/He is charged with the accountability of assisting with the preparation and updates to work manuals for field personnel.

The incumbent's work is such that it must be performed in close coordination with the Nuclear Instrumentation Specialist. S/He must assist with planning, scheduling, and conducting training programs, for state, county and municipal employees. The incumbent may be required to travel throughout the state without direct supervision to instruct, counsel, and solve problems of testing in the operation of the units. S/He also assists with the reviews and evaluations of the use of equipment by others, recommends procedural changes based on equipment modifications or research, and performs mathematical calculations necessary to reduce data to meaningful terms.

The incumbent must have a constructive rapport with the Radiation Safety Officers of the department to assure that all department personnel and the public are continuously made aware of radiological safety and health regulations. S/He is accountable for maintaining positive working relations with district personnel who operate the units, with Radiation Officers of each district, and federal and state government agencies which are concerned with proper handling, storage and disposal of nuclear materials.

The effectiveness of the incumbent is measured by the ability to capably and competently provide expert assistance to the Nuclear Instrumentation Specialist with coordination, administration, and motivation of all implicated processes in maintaining optimum utilization of rapid nondestructive field testing.

Principal Accountabilities

1. Provides calibration, preventive maintenance, and repair of all devices to maintain optimum utilization of rapid nondestructive testing.
2. Compiles and analyzes technical data that will assist in establishing operating and safety policies for use throughout the state.
3. Assists with the development of training programs and trains new personnel who will use the testing devices to ensure their safety and the safety of the public.
4. Conducts evaluation and standardization procedures for various types and models of nuclear moisture-density gauges to ensure their proper use.
5. Collaborates with district personnel and various government agencies to ensure compliance of department specifications and environmental policies.
6. Assists with research on new testing procedures and on new repair techniques that will produce speedy results and less costly maintenance repairs.
7. Travels on an as-needed basis to perform the duties of this position.
8. Is on call for advice and emergency assistance to district personnel who operate the nuclear equipment.
9. Performs other duties as required or assigned.
10. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.